JAPANESE [JP,06-078467,U]

CLAIMS DETAILED DESCRIPTION TECHNICAL FIELD PRIOR ART EFFECT OF THE INVENTION TECHNICAL PROBLEM MEANS OPERATION EXAMPLE DESCRIPTION OF DRAWINGS DRAWINGS

[Translation done.]

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CLAIMS

[Utility model registration claim]
[Claim 1] the base plate which consists of the base plate section of the second page crooked at 90 degrees of abbreviation — this — from the piece of support which is set up from the base plate section of the second page, respectively, and has the panel edge fitting section on both sides — becoming — this — the panel dummy support characterized by preparing a tapped hole in the base plate section of the second page, respectively, and being attached in the corner of a ground pillar

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DETAILED DESCRIPTION

[Detailed explanation of a design]
[0001]
[Industrial Application]
This design is related with the panel splicing fitting used when attaching building-materials panels, such as for example, an outer wall board, in a ground pillar.
[0002]
[The background of a design]
The residence in the ground in the center of Tokyo etc. is in the inclination built by lessening an interval with the established building which adjoins from the point of a deployment of land as much as possible.
In housing construction with few intervals with such an adjoining established building, the shipfitter thing of the outer wall board from an outdoors side must become impossible, and an outer wall board must be attached from an indoor side.
[0003]
[Description of the Prior Art]
As conventionally shown in drawing 10 , it is a minerals outer wall board (1). Centrum formed in the interior (2) It is a metal insertion rail (4) inside. It inserts. on the other hand — ground pillar (3) **** — metal channel piece (5) It multiplies. An indoor side to this channel piece (5) Tapped hole (6) It minds and ****s and is (7). This outer wall board (1) It is made to penetrate and is an insertion rail (4). Composition screwed on (JP,3-61011,U), Or as shown in drawing 11 , it is a minerals outer wall board (1). It replaces with an insertion rail inside and is an insertion plug (8). It embeds. This insertion plug (8) An indoor side to channel piece (5) Tapped hole (6) It minds and ****s and is (7). The composition (JP,3-61033,U) screwed on is offered.
[0004]
[Problem(s) to be Solved by the Device]
However, it sets in composition conventionally [above-mentioned], and is an outer wall board (1). It is an insertion rail (4) inside. Insertion plug (8) Since it inserts, it is an outer wall board (1). Time and effort is ****** and an outer wall board (1) to manufacture. It has influence also on intensity.
furthermore, outer wall board (1) the stress by the weight, the vibration from the outside, etc. — ****ing — (7) Rail (4) And plug (8) it is easy to concentrate on a junction, and since attachment intensity is not enough, it is based on this stress — ****ing — (7) Breakage and plug (8) falling out — etc. — outer wall board (1) There is a trouble referred to as being easy to drop out.
[0005]
[Means for Solving the Problem]
the base plate section (12 13) of the second page to which this design was crooked at 90 degrees of abbreviation as the above-mentioned conventional The means for solving a technical problem from — with the becoming base plate this — the base plate section (12 13) of the second page from — it sets up, respectively — having — both sides — panel (1) The edge fitting section (17 18) It consists of a piece of support (16) which it has. this — the base plate section (12 13) of the second page **** — respectively — tapped hole (14 15) it prepares —

having — ground pillar (3) The panel dummy support (11) attached in a corner is offered.
[0006]
[Function]
The base plate of th pan l dummy support (11) of this design is the base plate secti n (12 13) of the second page crooked at 90 degrees of abbreviation. Sinc it has Ground pillar (3) Th base plate section (12) of one field is this ground pillar (3) to a predetermined corner. Clamp face, The base plate section (13) of the field of another side is this ground pillar (3). It contacts so that it may be located in the side, and the base plate section (13) located in the side is ****ed through a tapped hole (15), and it is a ground pillar (3) by (19). It fixes. This fixed work is a ground pillar (3). Since it carries out on the side, it can carry out from indoor. Furthermore, ground pillar (3) The base plate section (13) of the field of another side is this ground pillar (3) to th field section of a different position. The base plate section (12) of one field of a clamp fac is this ground pillar (3). A panel dummy support (11) can also be attached so that it may be locat d in the side.
Thus, ground pillar (3) It sets on both sides of the piece of support (16), and the fixed panel dummy support (11) is a panel (1 1). It is the fitting section (17 18) of this piece of support (16) about the edge. It is this panel (1 1) by fitting in. It supports.
[0007]
[Example]
If one example which shows this design to drawing 1 – drawing 8 explains, the base plate of a panel dummy support (11) is crooked at 90 degrees of abbreviation, and it is the base plate section (12 13) of the second page. It is formed. Each base plate section (12 13) In an ends edge, it is a slant face (12A, 12B, 13A, 13B). It is formed. one slant face (12A, 13A) from — further — piece of attachment (12C, 13C) it extends — having — this slant face (12A, 13A) Piece of attachment (12C, 13C) **** — respectively — tapped hole (14 15) It is prepared.
This base plate section (12 13) The cross-section [of Y characters]-like piece of support (16) is set up, and a shell is a panel (1) in the both sides of this piece of support (16). Fitting crevice which is the fitting section which fits in the edge (17 18) It is formed.
[0008]
The above-mentioned panel dummy support (11) is used, and it is an outer wall board (1) from indoor. Ground pillar (3) The construction method to attach is explained below.
Outer wall board which is the building-materials panel by which this panel dummy support (11) is applied to drawing 2 (1) It is shown. This outer wall board (1) It consists of a woody board, a minerals board, etc. in an end edge Upper fruit (1A), The lower fruit (1B) is formed in the other end edge, and it is the fitting crevice (17 18) of the piece of support (16) of this panel dummy support (11) in the upper fruit (1A) bottom. The fitting heights (1C) which fit into either are formed, and the step (1D) is formed in the lower fruit (1B) bottom.
[0009]
Outer wall board which uses this panel dummy support (11) for drawing 3 (1) The basic portion of attachment structure is shown. C type channel by which this basic portion is installed on the foundation (20) and this foundation (20) (21), It consists of water-break metallic ornaments (22) which **** on the outside of this C type channel (21), and are attached firmly by (23). This water-break metallic-ornaments (22) upper surface (22A) In a predetermined part, it is a notch (22B). It is prepared and is this notch (22B). Ground pillar which is C type channel in a part (3) It is set up.
As shown in drawing 4 , it is this ground pillar (3). It is set up from the foundation (20) at the predetermined intervals, and is an outer wall board (1) further. The square shape ground pillar (3A) is arranged at the lateral joint.
[0010]
Thus, when setting up a ground pillar (3 3A), it is the outer wall board (1) of the upper part to [between indoor to ground pillars (3 3A), or] the least significant. It arranges on the outside of this ground pillar (3 3A). As shown in drawing 3 , it is this outer wall board (1). The fitting heights (1C) of a soffit edge are minded, and it is the protruding edge (22C) of water-break metallic ornaments (22). It is made to support and is this outer wall board (1). It is a ground pillar (3)

about this panel dummy support (11) in the position of a upper-limit edge. It attaches.
This dummy support (11) is this ground pillar (3) about a sheet of base plate section (12), as shown in drawing 5 . It arranges to a panel mounting side (superficies). It is this ground pillar (3) about the base plate section (13) of other sides. It arranges on the side, it sets indoors and is this ground pillar (3). Although th base plate section (13) of this dummy support (11) is ****ed through a tapped hole (15) on the side and it fixes by (19) Under the present circumstanc s, it is the outer wall board (1) of the least significant to the fitting crevice (18) of the piece (16) bottom of support of this dummy support (11). A upper-limit space-under-the-porch fruit (1B) is fitted in.

[0011]

Thus, outer wall board of the least significant (1) Protruding edge of water-break metallic ornaments (22) (22C) Although supported between dummy supports (11) Outer wall board (1) As both the lateral edge sections joint is shown in drawing 6 , a dummy support (11) is attached in Morozumi of a square shape ground pillar (3A), respectively. One dummy support (11) is one outer wall board (1) at the piece of support (16) by the side of the base plate section (12). It supports. The dummy support (11) of another side is the outer wall board (1) of another side at the piece of support (16) by the side of the base plate section (13). Outer wall board supported and joined (1 1) Joyner (24) is made to intervene in between.

[0012]

Thus, outer wall board of the least significant (1) When attaching in a ground pillar (3 3A), it is the following outer wall board (1) on it. It arranges on the outside of this ground pillar (3 3A) between indoor to ground pillars (3 3A), or from the upper part. As shown in drawing 7 , it is this outer wall board (1). The fitting heights (1C) of a soffit edge are fitted into the fitting crevice (17) of the piece of support (16) of this dummy support (11), and it is a lower outer wall board (1) about an upper fruit (1A). It compares to the step (1D) of a upper-limit edge.
Thus, as shown in drawing 8 , it is an outer wall board (1). It arranges in a column and is a ground pillar (3). Although it attaches through a dummy support (11), a wall is constructed and it goes, since such all construction can be performed from indoor, it does not interfere in this construction with the adjoining building B shown in drawing 4 .

[0013]

Other examples are shown in drawing 9 . the base plate section (32 33) of the second page to which the dummy support (31) of this example was crooked at 90 degrees of abbreviation from -- with the becoming base plate This base plate section (32 33) It consists of a piece of support (36) by which a shell set-up is carried out. The upper-limb center section of this piece of support (36) is bent, up both edges are bent below, a fitting crevice (38) is formed in a center section at a fitting crevice (37) and both edges, and it is this base plate section (32 33). In the upper-limit section, it is a tapped hole (34 35). It is prepared.

[0014]

[Effect of the Device]

therefore, the insertion for holding a screw thread to a panel side about this design -- it is not necessary to insert a member etc. and a panel can be attached in a ground pillar from indoor, panel intensity is not degraded and panel mounting intensity will also become sufficiently big

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DESCRIPTION OF DRAWINGS

[Brief Description of the Drawings]
Drawing 1 - drawing 8 show one example of this design.
[Drawing 1] Panel dummy support
[Drawing 2] Outer wall board partial side elevation
[Drawing 3] Basic partial perspective diagram
[Drawing 4] Outer wall plan
[Drawing 5] The supporting-section perspective diagram of an outer wall board
[Drawing 6] Outer wall board longitudinal direction joint part plan
[Drawing 7] Outer wall board lengthwise joint part sectional side elevation
[Drawing 8] Outer wall board lengthwise joint part perspective diagram
[Drawing 9] The perspective diagram of other examples
[Drawing 10] Explanatory drawing of the conventional example
[Drawing 11] Explanatory drawing of other conventional examples
[Description of Notations]
1 Outer Wall Board (Panel)
3 Ground Pillar
11 31 Panel dummy support
12, 13, 32, 33 Base plate section
14, 15, 34, 35 Tapped hole
16 36 Piece of support
17, 18, 37, 38 Fitting crevice

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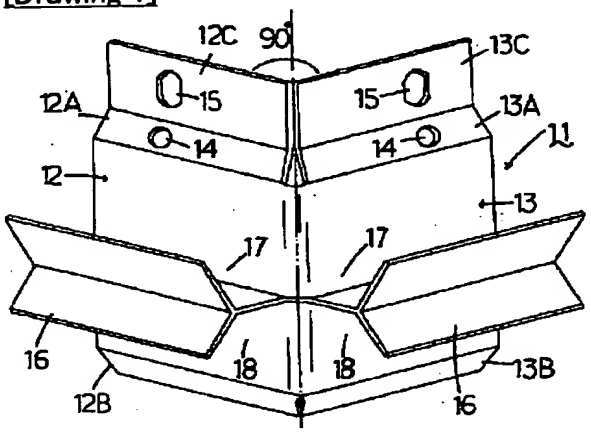
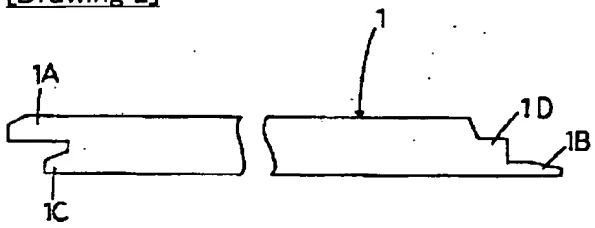
DRAWINGS

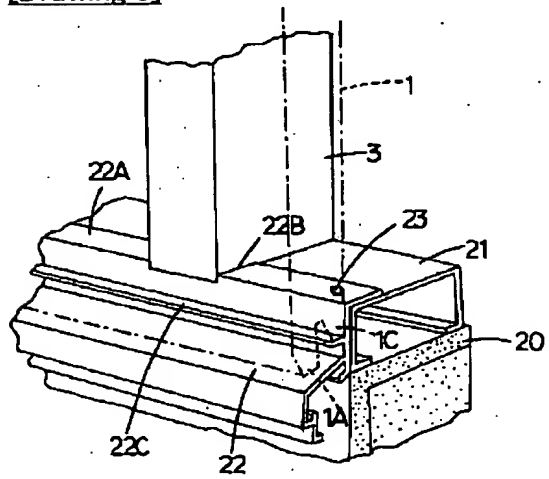
[Drawing 1]



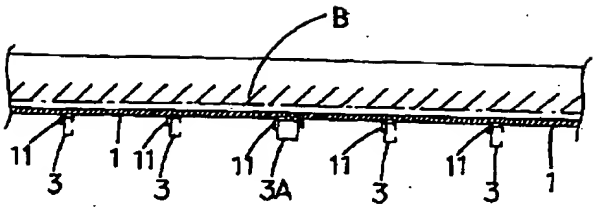
[Drawing 2]



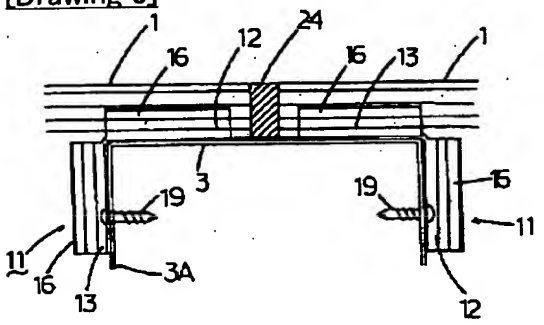
[Drawing 3]



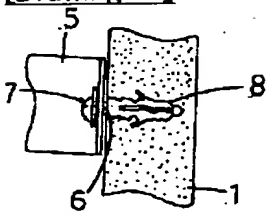
[Drawing 4]



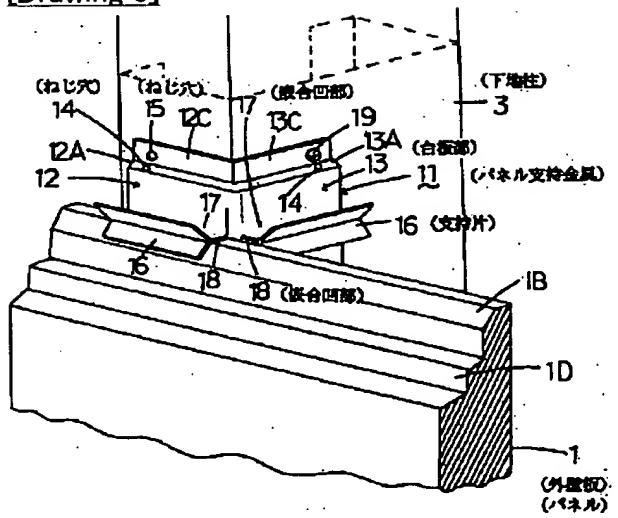
[Drawing 6]



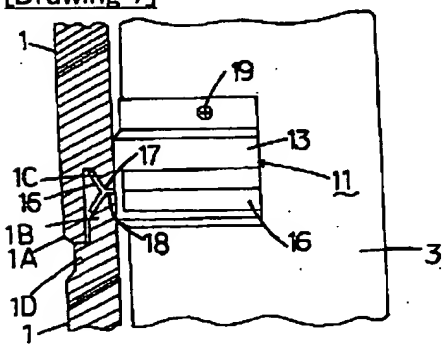
[Drawing 11]



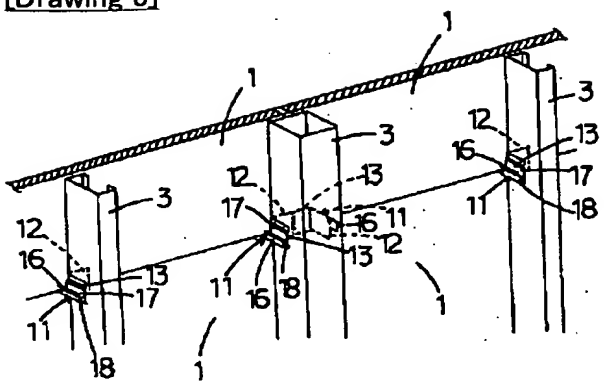
[Drawing 5]



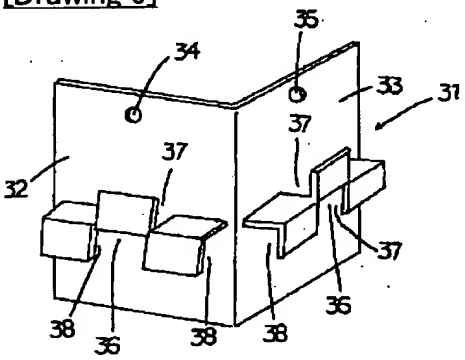
[Drawing 7]



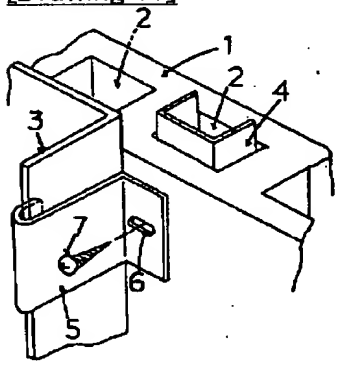
[Drawing 8]



[Drawing 9]



[Drawing 10]



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Ｅ０４Ｆ　13/08	１０１	Ｄ　9127－2Ｅ		

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(71)出願人　000110860
ニチハ株式会社
愛知県名古屋市港区汐止町12番地

(72)考案者　伊藤　秀仁
名古屋市港区汐止町12番地　ニチハ株式会社内

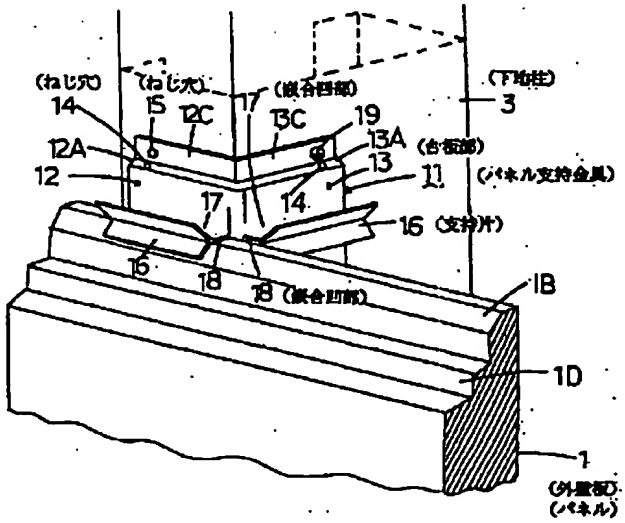
(74)代理人　弁理士　宇佐見　忠男

(54)【考案の名称】　パネル支持金具

(57)【要約】

【目的】本考案は屋内から下地柱に建材パネル等を容易に取付けることが出来るようなパネル支持金具を提供することを目的とする。

【構成】略９０°に屈曲した二面の台板部１２，１３を有するパネル支持金具１１を下地柱３の角部に当接し、該下地柱３の側面において一方の台板部１３を屋内においてねじ１９にて固定し、該パネル支持金具１１の支持片１６の両側の嵌合凹部１７，１８にパネル１，１の端縁部を嵌合する。



1

【実用新案登録請求の範囲】

【請求項１】略９０°に屈曲した二面の台板部からなる台板と、該二面の台板部から夫々立設され両側にパネル端縁嵌合部を有する支持片とからなり、該二面の台板部には夫々ねじ穴が設けられ、下地柱の角部に取付けられることを特徴とするパネル支持金具

【図面の簡単な説明】

図１～図８は本考案の一実施例を示すものである。

【図１】パネル支持金具

【図２】外壁板部分側面図

【図３】基礎部分斜視図

【図４】外壁上面図

【図５】外壁板の支持部分斜視図

【図６】外壁板横方向接合部分上面図

2

【図７】外壁板縦方向接合部分側断面図

【図８】外壁板縦方向接合部分斜視図

【図９】他の実施例の斜視図

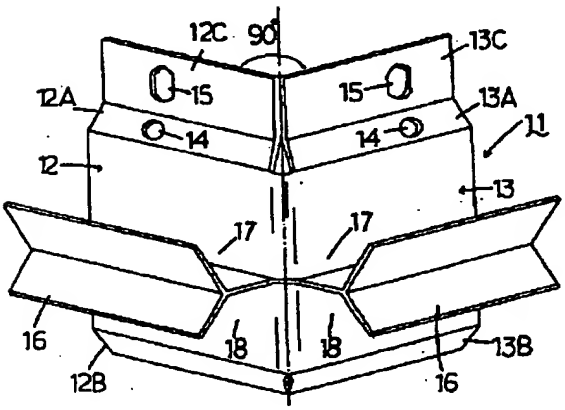
【図１０】従来例の説明図

【図１１】他の従来例の説明図

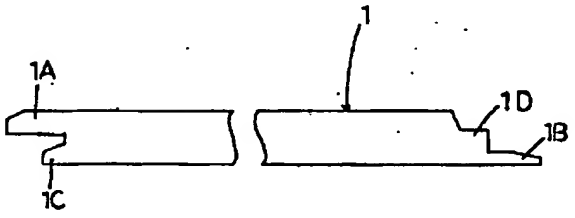
【符号の説明】

1	外壁板（パネル）
3	下地柱
11,31	パネル支持金具
12,13,32,33	台板部
14,15,34,35	ねじ穴
16,36	支持片
17,18,37,38	嵌合凹部

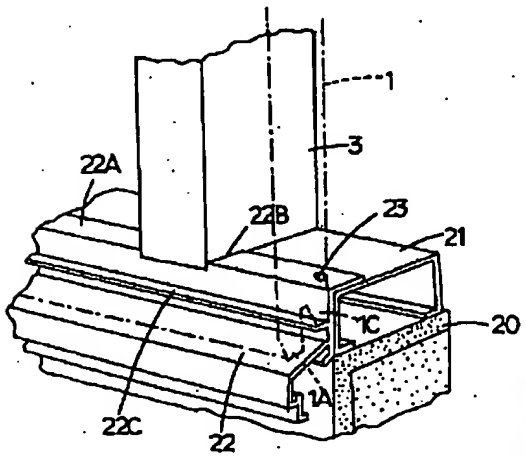
【図１】



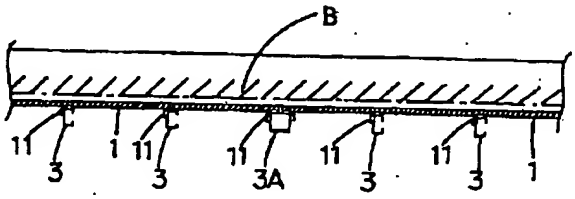
【図２】



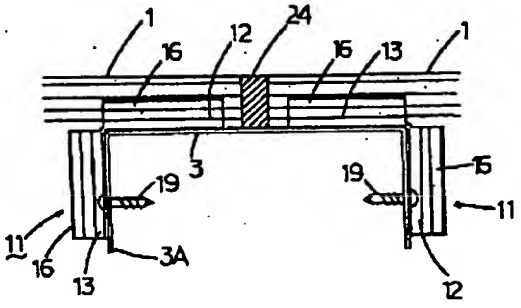
【図３】



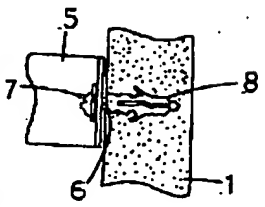
【図４】



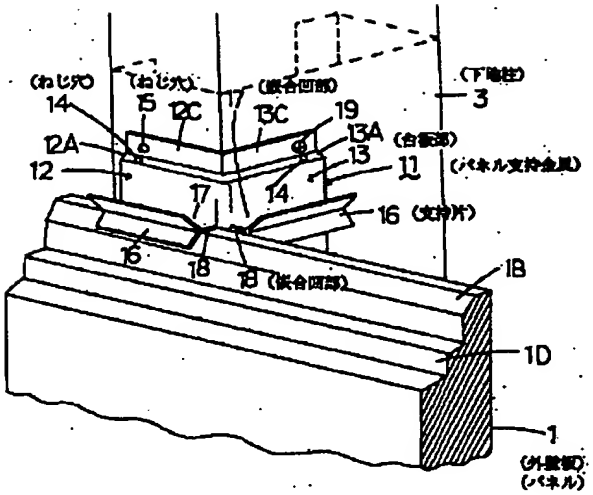
【図６】



【図１１】



【図５】



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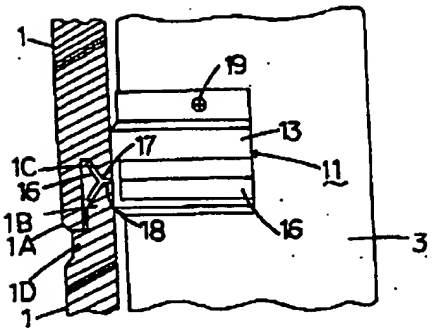

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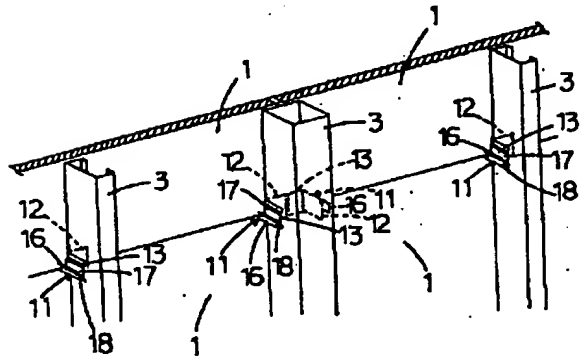

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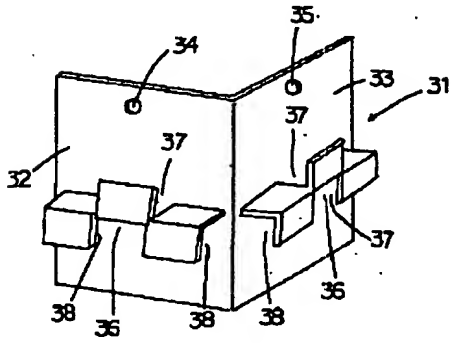
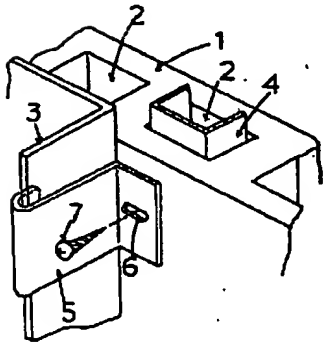


【図１０】



【考案の詳細な説明】

【０００１】

【産業上の利用分野】

本考案は例えば外壁板等の建材パネルを下地柱に取付ける場合に使用されるパネル接続金具に関するものである。

【０００２】

【考案の背景】

都心地等における住宅は土地の有効利用の点から隣接する既設建築物との間隔を出来るだけ少なくして建設される傾向にある。

このような隣接する既設建築物との間隔が少ない住宅建設においては、屋外側からの外壁板の取付工事が不可能となり、屋内側から外壁板を取付けなければならない。

【０００３】

【従来の技術】

従来は図１０に示すように無機質外壁板(1) 内部に形成された中空部(2) 内に金属製インサートレール(4) を挿入し、一方下地柱(3) には金属製のチャンネルピース(5) を掛合し、屋内側から該チャンネルピース(5) のねじ穴(6) を介してねじ(7) を該外壁板(1) を貫通させインサートレール(4) に螺着した構成（実開平３－６１０１１号）、あるいは図１１に示すように無機質外壁板(1) 内部にインサートレールに代えてインサートプラグ(8) を埋込んでおいて、該インサートプラグ(8) に屋内側からチャンネルピース(5) のねじ穴(6) を介してねじ(7) を螺着した構成（実開平３－６１０３３号）等が提供されている。

【０００４】

【考案が解決しようとする課題】

しかしながら上記従来構成においては、外壁板(1) 内にインサートレール(4) やインサートプラグ(8) を挿入するから、外壁板(1) の製造に手間がかゝり、また外壁板(1) の強度にも影響がある。

更に外壁板(1) の重量や外部からの振動等による応力はねじ(7) とレール(4) およびプラグ(8) との接合点に集中し易く、取付強度が充分でないので該応力に

よるねじ(7) の折損やプラグ(8) の抜け落ち等によって外壁板(1) が脱落し易いと云う問題点がある。

【０００５】

【課題を解決するための手段】

本考案は上記従来の課題を解決するための手段として、略９０° に屈曲した二面の台板部(12,13) からなる台板と、該二面の台板部(12,13) から夫々立設され両側にパネル(1) 端縁嵌合部(17,18) を有する支持片(16)とからなり、該二面の台板部(12,13) には夫々ねじ穴(14,15) が設けられ、下地柱(3) の角部に取付けられるパネル支持金具(11)を提供するものである。

【０００６】

【作用】

本考案のパネル支持金具(11)の台板は略９０° に屈曲した二面の台板部(12,13) を有しているから、下地柱(3) の所定の角部に一方の面の台板部(12)が該下地柱(3) の取付面、他方の面の台板部(13)が該下地柱(3) の側面に位置するように当接し、側面に位置する台板部(13)をねじ穴(15)を介してねじ(19)によって下地柱(3) に固定する。この固定作業は下地柱(3) の側面で行なうので屋内から実施出来ることになる。更に下地柱(3) の違う位置の面部に他方の面の台板部(13)が該下地柱(3) の取付面の一方の面の台板部(12)が該下地柱(3) の側面に位置するようにパネル支持金具(11)を取付けることも出来る。

このようにして下地柱(3) に固定されたパネル支持金具(11)はその支持片(16)の両側において、パネル(1,1) の端縁を該支持片(16)の嵌合部(17,18) に嵌合することによって該パネル(1,1) を支持する。

【０００７】

【実施例】

本考案を図１～図８に示す一実施例によって説明すれば、パネル支持金具(11)の台板は略９０° に屈曲せられて二面の台板部(12,13) が形成され、各々の台板部(12,13) の両端縁には斜面(12A,12B,13A,13B) が形成され、一方の斜面(12A,13A) からは更に取付片(12C,13C) が延長され、該斜面(12A,13A) と取付片(12C,13C) とには夫々ねじ穴(14,15) が設けられている。

該台板部(12,13) からは断面Ｙ字状の支持片(16)が立設されており、該支持片(16)の両側にはパネル(1) の端縁を嵌合する嵌合部である嵌合凹部(17,18) が形成されている。

【０００８】

上記パネル支持金具(11)を使用して屋内から外壁板(1) を下地柱(3) に取付ける施工方法を下記に説明する。

図２に本パネル支持金具(11)が適用される建材パネルである外壁板(1) が示される。該外壁板(1) は木質板、無機質板等からなり、一端縁には上実(1A)、他端縁には下実(1B)が形成されており、上実(1A)の下側には本パネル支持金具(11)の支持片(16)の嵌合凹部(17,18) のいずれかに嵌合する嵌合凸部(1C)が形成されており、また下実(1B)の上側には段部(1D)が形成されている。

【０００９】

図３に本パネル支持金具(11)を使用する外壁板(1) 取付構造の基礎部分が示される。該基礎部分は基礎(20)と、該基礎(20)上に設置されるＣ型チャンネル(21)と、該Ｃ型チャンネル(21)の外側にねじ(23)によって止着される水切金具(22)とからなり、該水切金具(22)上面(22A) の所定個所には切欠き(22B) が設けられており、該切欠き(22B) の個所にＣ型チャンネルである下地柱(3) が立設されている。

図４に示すように該下地柱(3) は所定の間隔で基礎(20)から立設されており、更に外壁板(1) の横方向の接合部には角型下地柱(3A)が配置されている。

【００１０】

このようにして下地柱(3,3A)を立設したら、屋内から下地柱(3,3A)の間または上方から最下位の外壁板(1) を該下地柱(3,3A)の外側に配置して、図３に示すように該外壁板(1) の下端縁の嵌合凸部(1C)を介して水切金具(22)の突縁(22C) に支持させ、該外壁板(1) の上端縁の位置で本パネル支持金具(11)を下地柱(3) に取付ける。

該支持金具(11)は図５に示すように一面の台板部(12)を該下地柱(3) のパネル取付面（外面）に配置し、他面の台板部(13)を該下地柱(3) の側面に配置し、屋内において該下地柱(3) の側面に該支持金具(11)の台板部(13)をねじ穴(15)を介

してねじ(19)によって固定するが、この際、該支持金具(11)の支持片(16)の下側の嵌合凹部(18)に最下位の外壁板(1) の上端縁の下実(1B)を嵌合する。

【００１１】

このようにして最下位の外壁板(1) は水切金具(22)の突縁(22C) と支持金具(11)との間で支持されるが、外壁板(1) の横方向の端縁部相互接合部においては図６に示すように角型下地柱(3A)の両角に支持金具(11)が夫々取付けられ、一方の支持金具(11)は台板部(12)側の支持片(16)で一方の外壁板(1) を支持し、他方の支持金具(11)は台板部(13)側の支持片(16)で他方の外壁板(1) を支持し、接合される外壁板(1,1) の間にはジョイナー(24)を介在せしめる。

【００１２】

このようにして最下位の外壁板(1) の下地柱(3,3A)に取付けたらその上に次の外壁板(1) を屋内から下地柱(3,3A)の間または上方から該下地柱(3,3A)の外側に配置して、図７に示すように該外壁板(1) の下端縁の嵌合凸部(1C)を該支持金具(11)の支持片(16)の嵌合凹部(17)に嵌合し、上実(1A)を下側の外壁板(1) の上端縁の段部(1D)に突合わせる。

このようにして図８に示すように外壁板(1) を縦列に配列して下地柱(3) に支持金具(11)を介して取付けて壁を施工して行くのであるが、このような施工はすべて屋内から出来るので、図４に示す隣接する建築物Ｂによって該施工作業が干渉されることがない。

【００１３】

図９には他の実施例が示される。本実施例の支持金具(31)は略９０° に屈曲した二面の台板部(32,33) からなる台板と、該台板部(32,33) から立設される支持片(36)とからなり、該支持片(36)の上縁中央部は上方に、両縁部は下方に折曲げて中央部に嵌合凹部(37)、両縁部に嵌合凹部(38)が形成され、該台板部(32,33)の上端部にはねじ穴(34,35) が設けられている。

【００１４】

【考案の効果】

したがって本考案では、パネル側にねじを保持するためのインサート部材等を挿入する必要がなく、屋内からパネルを下地柱に取付けることが出来、パネル強

度を劣化させることがなくかつパネル取付強度も充分大きなものとなる。